

[illegible]

```

PPPPPPPP  RRRRRRRR  EEEEEEEEE  FFFFFFFFF  IIIIIII  XX      XX
PPPPPPPP  RRRRRRRR  EEEEEEEEE  FFFFFFFFF  IIIIIII  XX      XX
PP      PP  RR      RR  EE      FF      II      XX      XX
PP      PP  RR      RR  EE      FF      II      XX      XX
PP      PP  RR      RR  EE      FF      II      XX      XX
PP      PP  RR      RR  EE      FF      II      XX      XX
PPPPPPPP  RRRRRRRR  EEEEEEEEE  FFFFFFFFF  IIIIIII  XX      XX
PPPPPPPP  RRRRRRRR  EEEEEEEEE  FFFFFFFFF  IIIIIII  XX      XX
PP      RR  RR      EE      FF      II      XX      XX
PP      RR  RR      EE      FF      II      XX      XX
PP      RR      RR  EE      FF      II      XX      XX
PP      RR      RR  EE      FF      II      XX      XX
PP      RR      RR  EEEEEEEEE  FFFFFFFFF  IIIIIII  XX      XX
PP      RR      RR  EEEEEEEEE  FFFFFFFFF  IIIIIII  XX      XX

```

```

RRRRRRRR      EEEEEEEEEEE      QQQQQQ
RRRRRRRR      EEEEEEEEEEE      QQQQQQ
RR           RR EE           QQ           QQ
RR           RR EE           QQ           QQ
RR           RR EE           QQ           QQ
RR           RR EE           QQ           QQ
RRRRRRRR      EEEEEEEEEEE      QQ           QQ
RRRRRRRR      EEEEEEEEEEE      QQ           QQ
RR   RR       EE           QQ           QQ
RR   RR       EE           QQ           QQ
RR           RR EE           QQ           QQ
RR           RR EE           QQ           QQ
RR           RR EE           QQ           QQ
RR           RR EEEEEEEEEEE      QQQQQ   QQ
RR           RR EEEEEEEEEEE      QQQQQ   QQ

```

Require file for DCX - Data Compression / Expansion Facility

Version: 'V04-000'

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FACILITY:

DCX -- Data Compression / Expansion Facility

ABSTRACT:

The Data Compression / Expansion procedures provide a general
method for reducing the storage requirement for a arbitrary data.

ENVIRONMENT:

VAX native, user mode.

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AUTHOR: David Thiel

CREATION DATE: July, 1982

MODIFIED BY:
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Common built-in functions

BUILTIN
insque,
remque;

Define VMS block structures

MACRO
BBLOCK = \$BBLOCK%; ! use common definition

Define routine linkages

LINKAGE
lkg_ctx_check =
JSB (REGISTER = 0, REGISTER = 1) :
NOPRESERVE (0, 1) NOTUSED (2, 3, 4, 5, 6, 7, 8, 9, 10, 11),
lkg_do =
CALL (; REGISTER = 0, REGISTER = 1),
lkg_long_move =
JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2) :
NOPRESERVE (0, 1, 2) PRESERVE (3, 4, 5, 6) NOTUSED (7, 8, 9, 10, 11),
lkg_map_check =
JSB (REGISTER = 0) :
NOPRESERVE (0, 1) NOTUSED (2, 3, 4, 5, 6, 7, 8, 9, 10, 11);

Linkage to LIB\$ANALYZE_SDESC_R2

LINKAGE
jsb_analyze_sdesc_r2 =
JSB (REGISTER = 0, REGISTER = 0, REGISTER = 1, REGISTER = 2) :
NOPRESERVE (0, 1, 2) NOTUSED (3, 4, 5, 6, 7, 8, 9, 10, 11);

EXTERNAL ROUTINE
lib\$analyze_sdesc_r2 :
jsb_analyze_sdesc_r2
NOVALUE
ADDRESSING_MODE (GENERAL);

Useful macros

MACRO
Macro to generate a pointer to a counted string
cstring (string) = UPLIT (%ASCIC string)%,
Macro to describe a string
stringdesc (string) = %CHARCOUNT (string), UPLIT (%ASCII string)%.


```
! Macro to generate a quadword string descriptor
! descriptor (string) = BBLOCK [dsc$c_s_bln] INITIAL (stringdesc (string))%,
! Macro to generate a counted string
! countedstring (string) = VECTOR [%CHARCOUNT (string)+1, BYTE] INITIAL (BYTE (%CHARCOUNT(string), %ASCII string ))%,
! Macro to execute a given sequence of commands and return if any error
perform [] =
  BEGIN
  LOCAL
    status;
    status = (%REMAINING);
    IF NOT .status
    THEN
      RETURN .status;
    .status
  END%;
    ! If error detected,
    ! then return with error
    ! Otherwise, status is block value

! Macros to ease typing
MACRO
  short = UNSIGNED (6)%,
  bytlit = UNSIGNED (8)%,
  wordlit = UNSIGNED (16)%;
    ! Short attribute
    ! Unsigned byte attribute
    ! Unsigned word attribute

! Equated symbols
LITERAL
  true      =      1,
  false     =      0;
    ! Boolean TRUE
    ! Boolean FALSE
```


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AH-BT13A-SE
 VAX/VMS V4.0

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